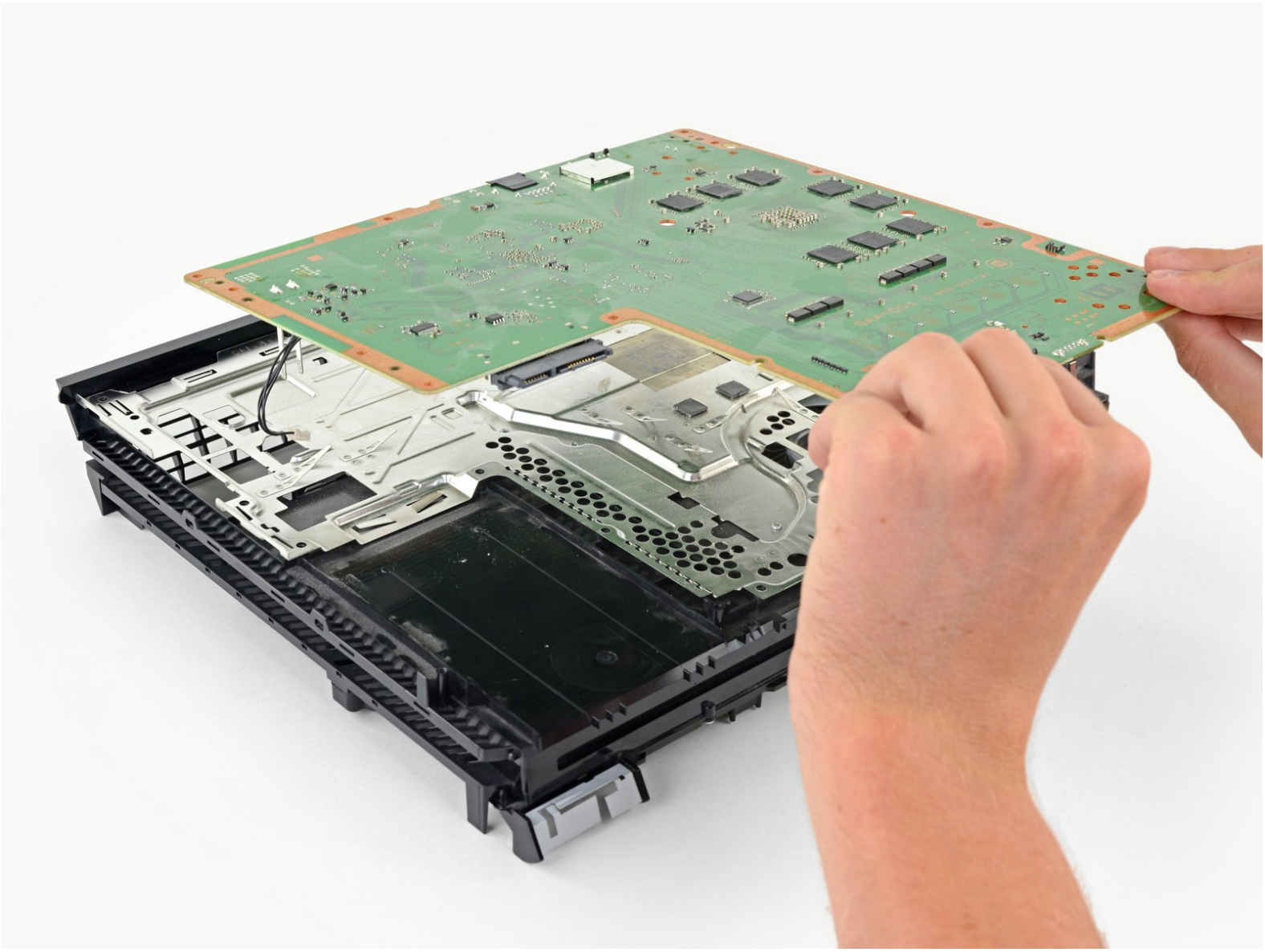
PlayStation 4 Motherboard Replacement

How to replace the motherboard on a Sony Playstation 4.

Written By: Sam Omiotek



This document was generated on 2021-06-12 09:17:31 AM (MST).

INTRODUCTION

Follow this guide to replace the motherboard on your Sony Playstation 4.

The motherboard and optical drive are paired, thus replacing only the motherboard will result in a non-functioning device. Be sure to order the correct paired optical drive and motherboard for your PS4 model and replace both.

Unplug your PS4 before beginning any repairs.

TOOLS:

- Tweezers (1)
- TR8 Torx Security Screwdriver (1)
- Phillips #0 Screwdriver (1)
- Spudger (1)

PARTS:

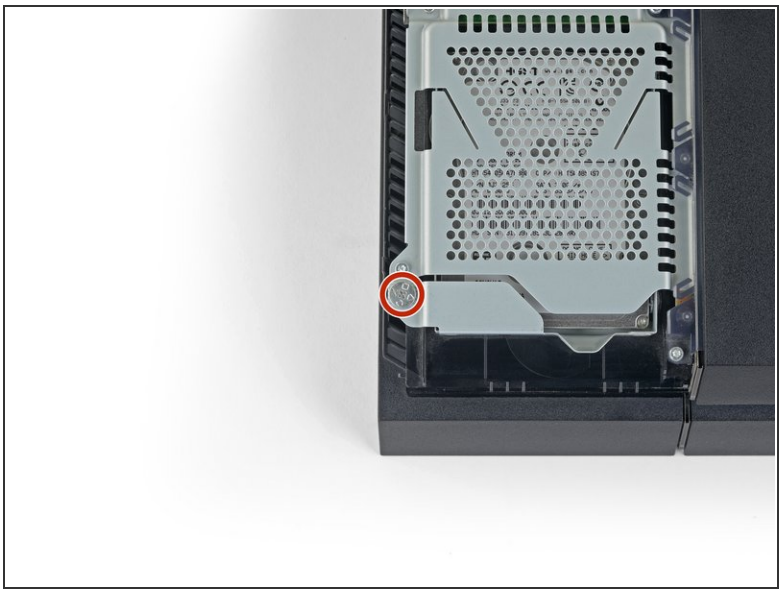
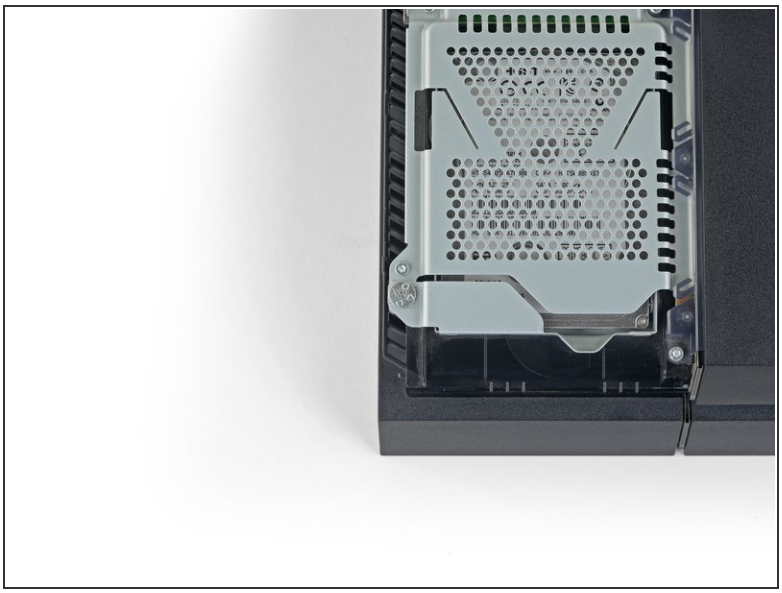
- PlayStation 4 SAA-001 Motherboard and Paired Optical Drive (1)
- Playstation 4 SAB-001 Motherboard and Paired Optical Drive (1)
- PlayStation 4 SAC-001 Motherboard and Paired Optical Drive (1)

© iFixit — CC BY-NC-SA

Step 1 — Remove the hard drive cover

- Grip the PS4 with both hands along the gap in the top cover.
- Push the glossy side of the top cover with your thumbs until it pops to the side.
- Lift the glossy top cover up and back to remove it from the PS4.

Step 2 — Remove the hard drive bracket screw

- Remove the 6.5 mm Phillips screw securing the hard drive bracket to the enclosure.

© iFixit — CC BY-NC-SA

Step 3 — Remove the hard drive bracket

- Pull the hard drive bracket out of the enclosure.

⚠ Be careful not to drop the hard drive. The internal components are fragile and are susceptible to damage by sudden shock.

Step 4 — Flip over the PS4

- Flip the PS4 upside-down with the back side facing towards you.

© iFixit — CC BY-NC-SA

Step 5 — Remove the warranty stickers

- Use tweezers to remove the two stickers in the center of the back of the PS4 exposing two case screws.

Step 6 — Remove the plastic screw covers

- Use tweezers to carefully remove the plastic screw covers in each corner, exposing two more case screws.

© iFixit — CC BY-NC-SA

Step 7 — Remove the rear case screws

- Remove the four 7.2 mm Torx security screws on the back of the PS4.

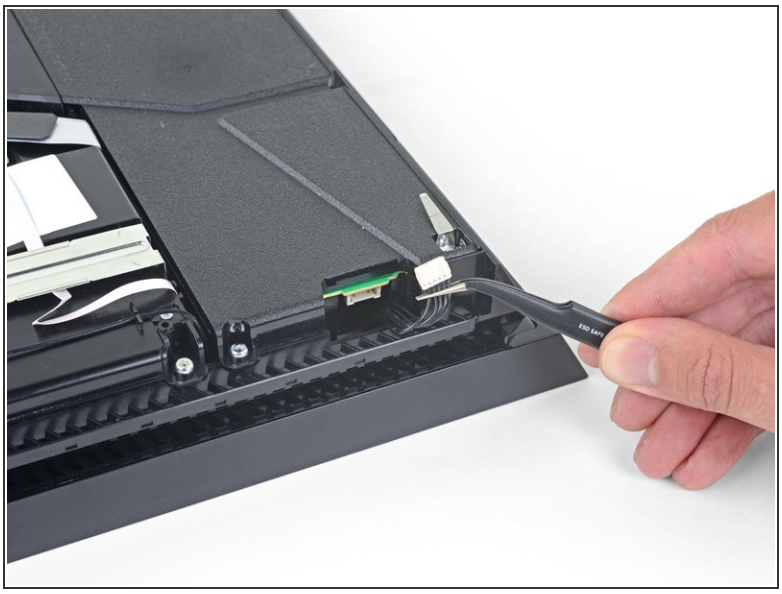
Step 8 — Remove the lower case

- Use your thumbs to lift the lower case up and off the PS4.

The lower case is held into place by plastic clips. You may need to use significant force to release the lower case.

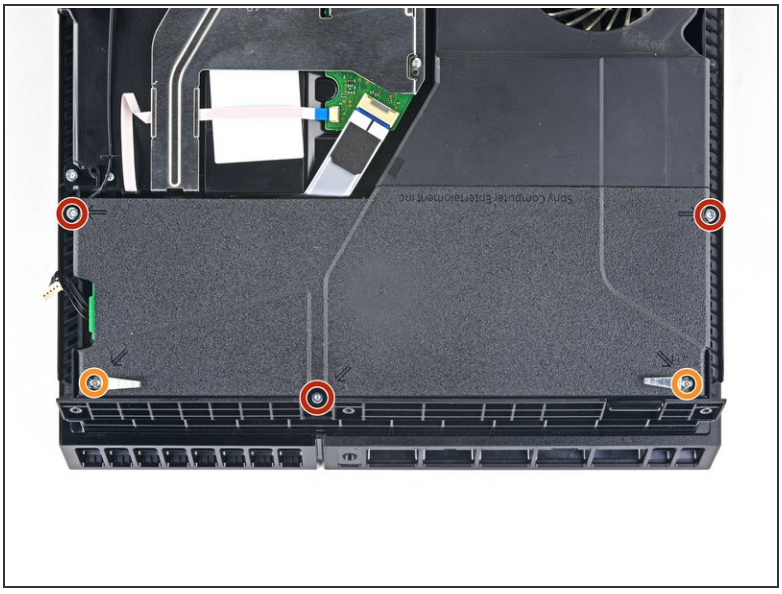
© iFixit — CC BY-NC-SA

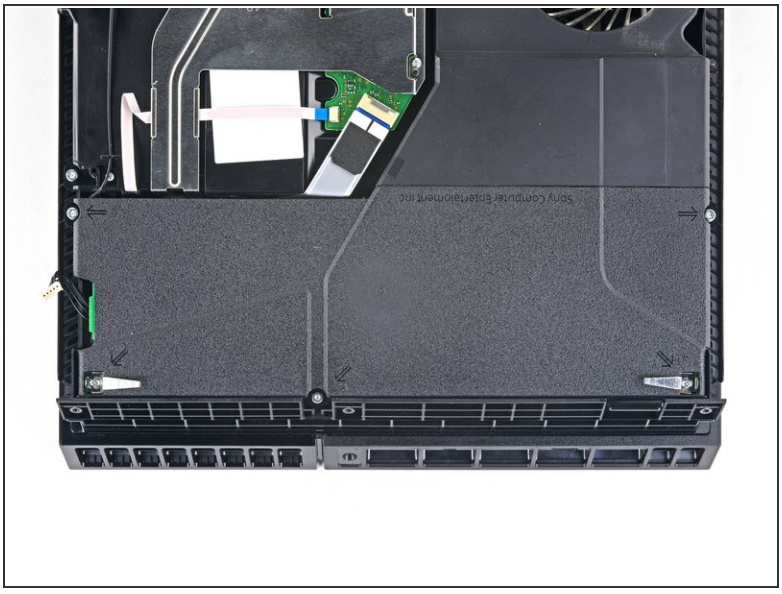
Step 9



- Use a pair of tweezers to pull the power supply cable straight out and disconnect the power supply unit from the motherboard.

Step 10 — Remove the power supply unit

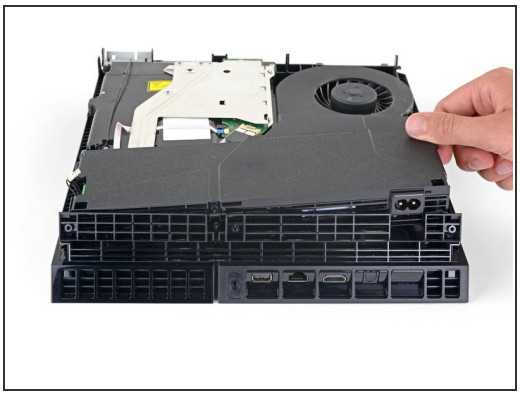
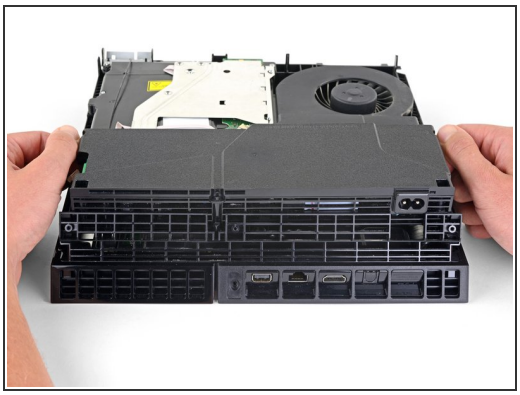
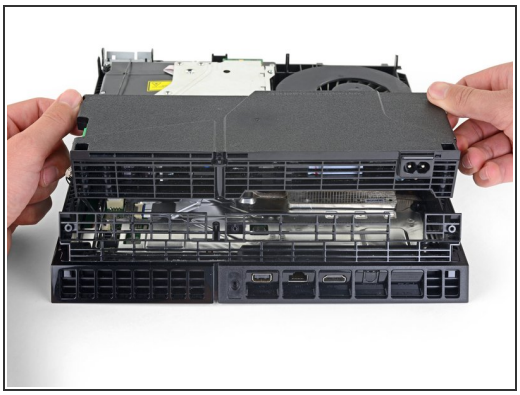




- Remove three 9.7 mm Torx security screws.
- Remove two 41 mm Phillips screws and brackets.

© iFixit — CC BY-NC-SA

Step 11

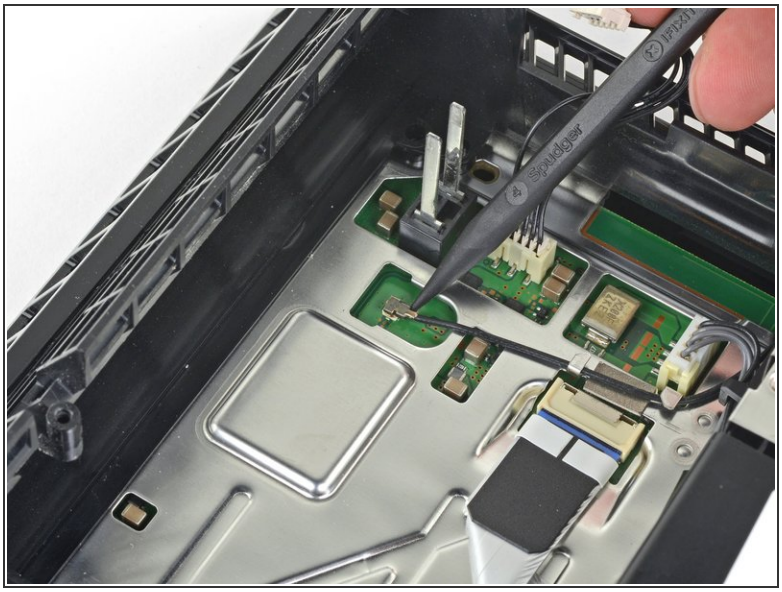
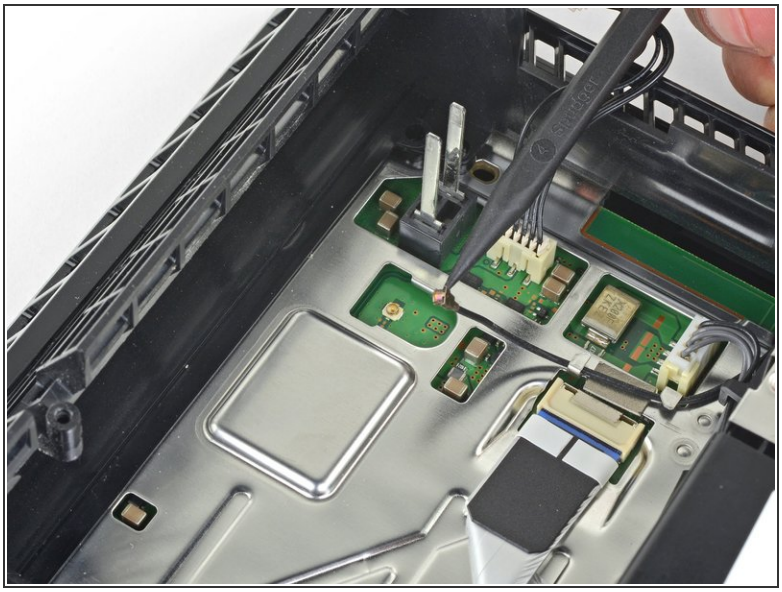




- Lift the power supply straight up and out of the PS4.

The power supply is held firmly in place by prongs on the left side. It may take multiple attempts to get it free.

During reassembly, ensure the prongs are aligned, then press the power supply into place.

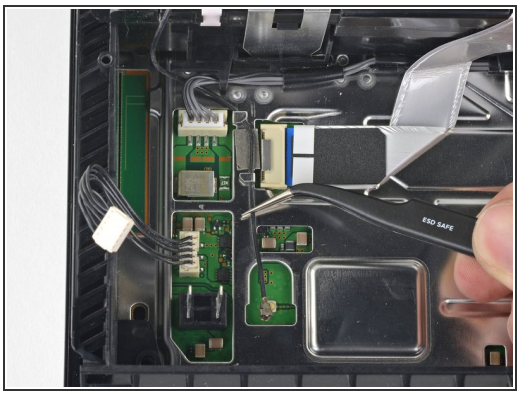
Step 12 — Remove the Wi-Fi antenna

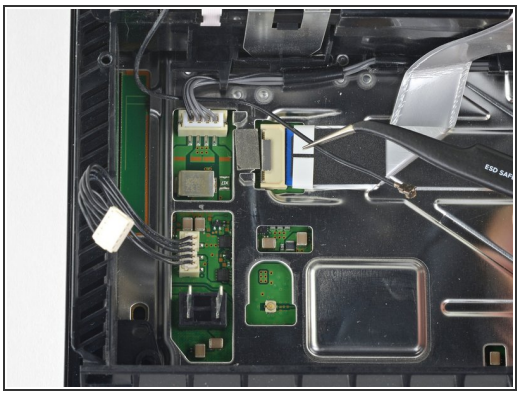



- Use the tip of a spudger to disconnect the antenna cable from the motherboard.

© iFixit — CC BY-NC-SA

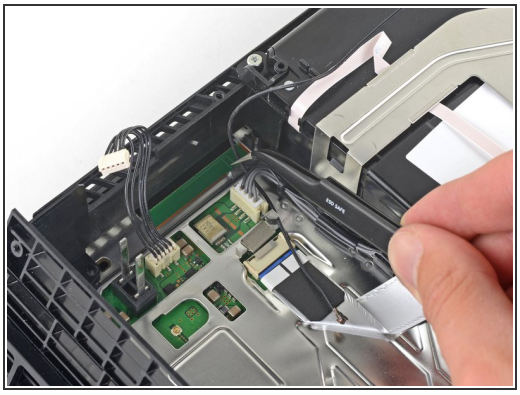
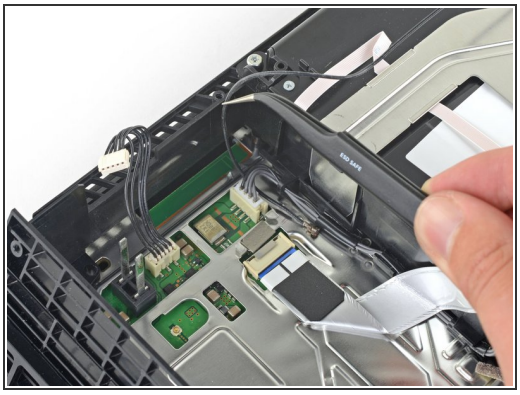
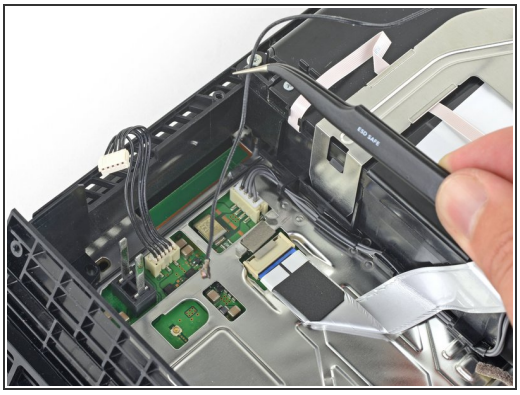
Step 13





- Use a pair of tweezers or your fingers to grab the antenna cable and move it out from the cable guides.

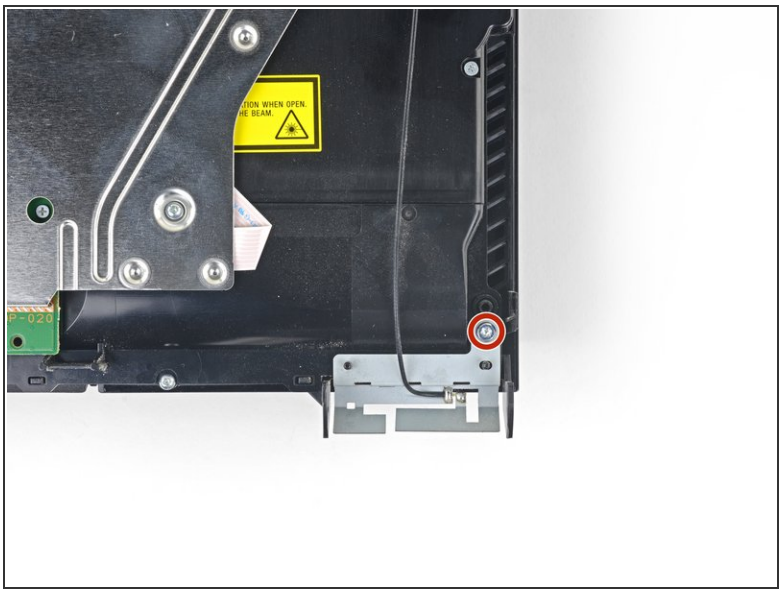
Step 14

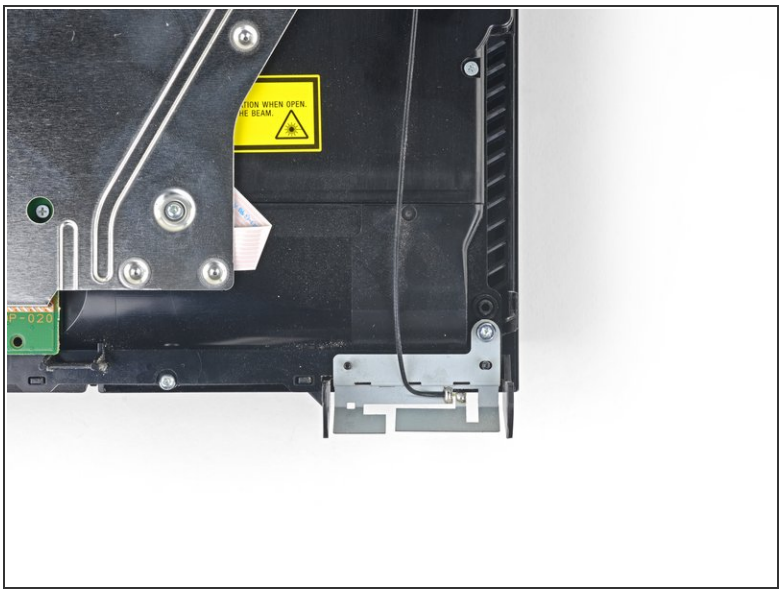




- Use a pair of tweezers or your fingers to thread the antenna cable out from underneath the optical drive cable.

© iFixit — CC BY-NC-SA

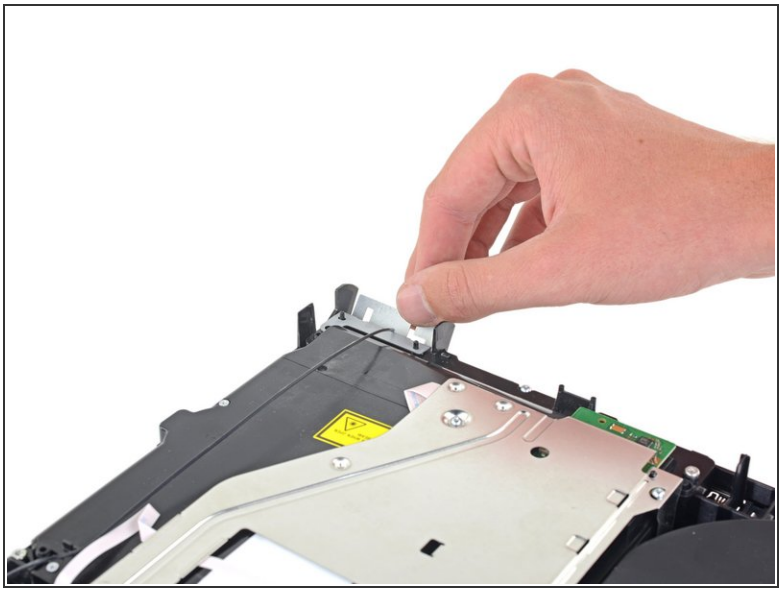
Step 15

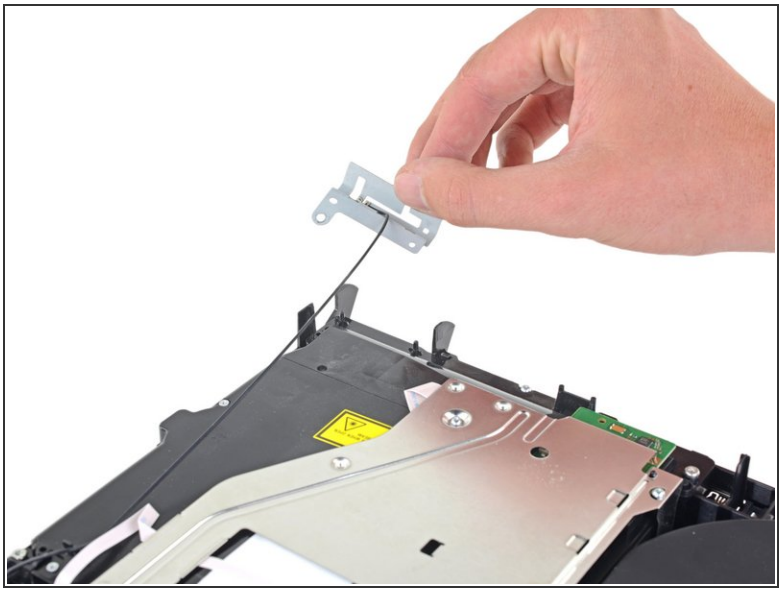




- Remove the 9.7 mm Torx security screw securing the antenna.

Step 16

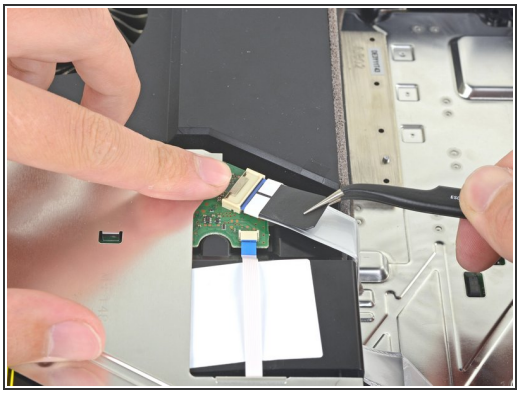
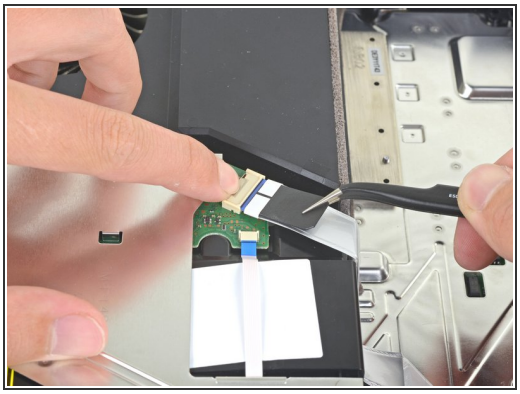
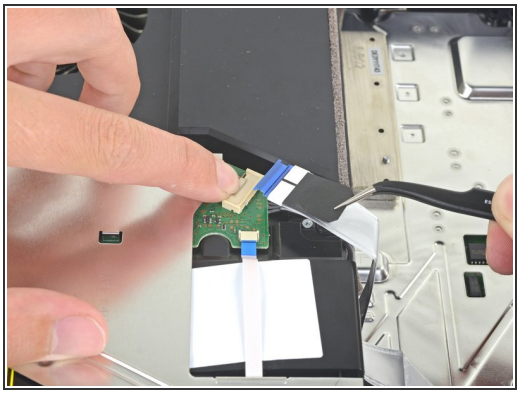




- Remove the Wi-Fi antenna.

© iFixit — CC BY-NC-SA

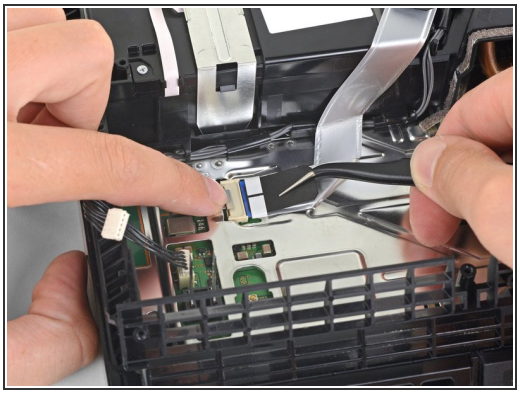
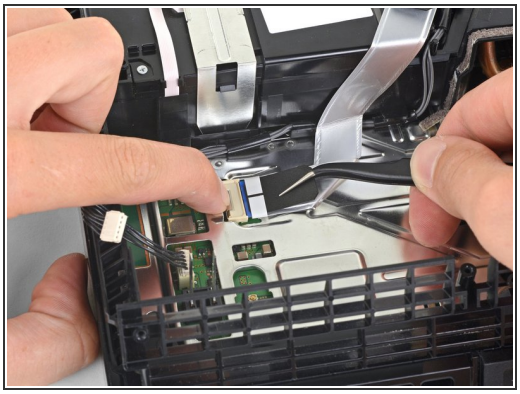
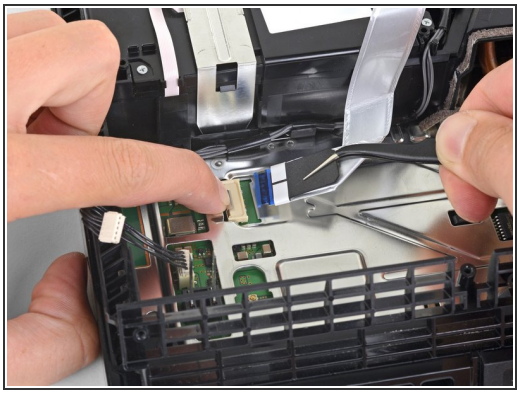
Step 17 — Disconnect the optical drive

- Use your fingernail to press down on the metal release lever of the ribbon cable on top of the optical drive.
- Use your fingers or a pair of tweezers to disconnect the ribbon cable by pulling on the black tab.

You do not need to press the metal lever when inserting the ribbon cable back in. You will hear a click once it is fully inserted.

Step 18

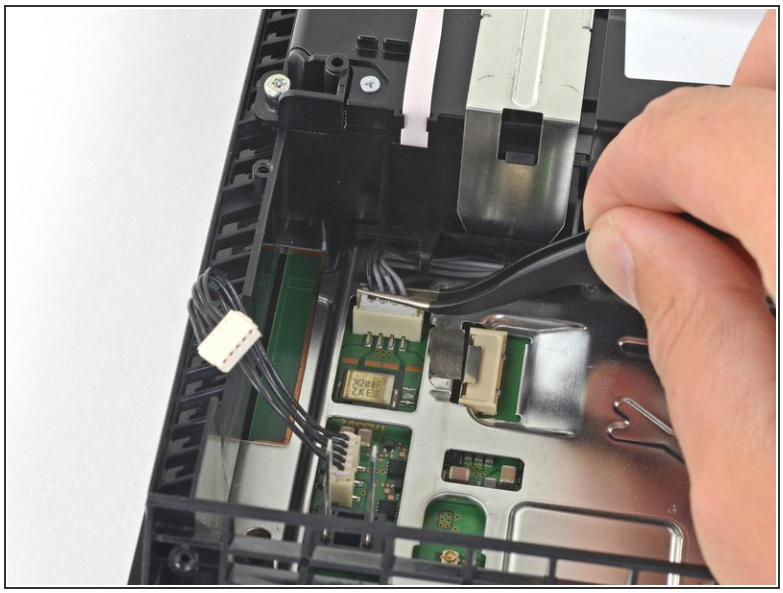
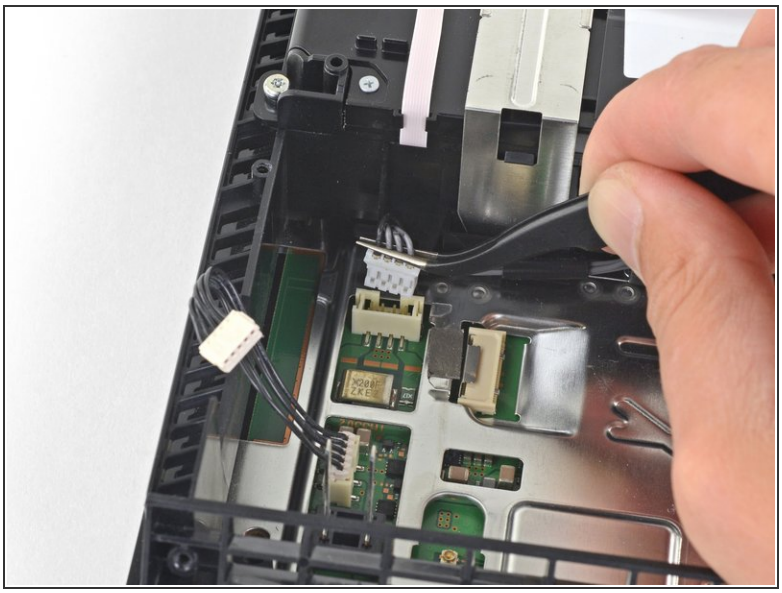




- Use your fingernail to press down the metal release lever for the ribbon cable connected to the motherboard.
- Use your fingers or a pair of tweezers to disconnect the ribbon cable by pulling on the black tab.
- Set the ribbon cable aside for reassembly.

You do not need to press the metal lever when inserting the ribbon cable back in. You will hear a click once it is fully inserted.

© iFixit — CC BY-NC-SA

Step 19

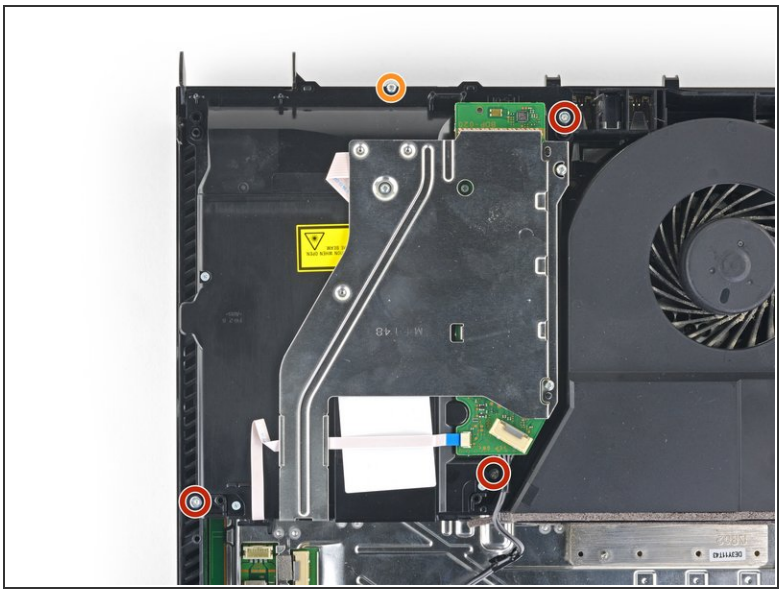
- Use your fingers or a pair of tweezers to disconnect the optical drive cable from the motherboard.

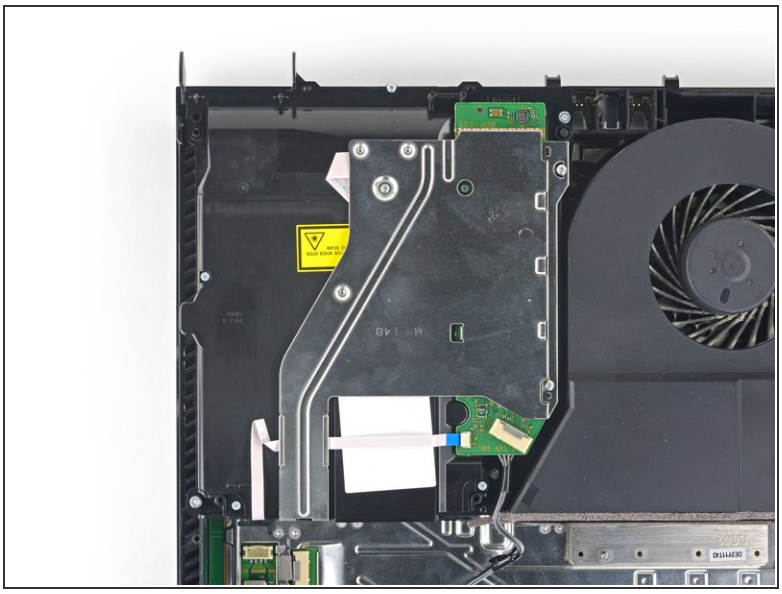
Step 20

- Use your fingers or a pair of tweezers to remove the optical drive cable from the cable guides that hold it in place.

© iFixit — CC BY-NC-SA

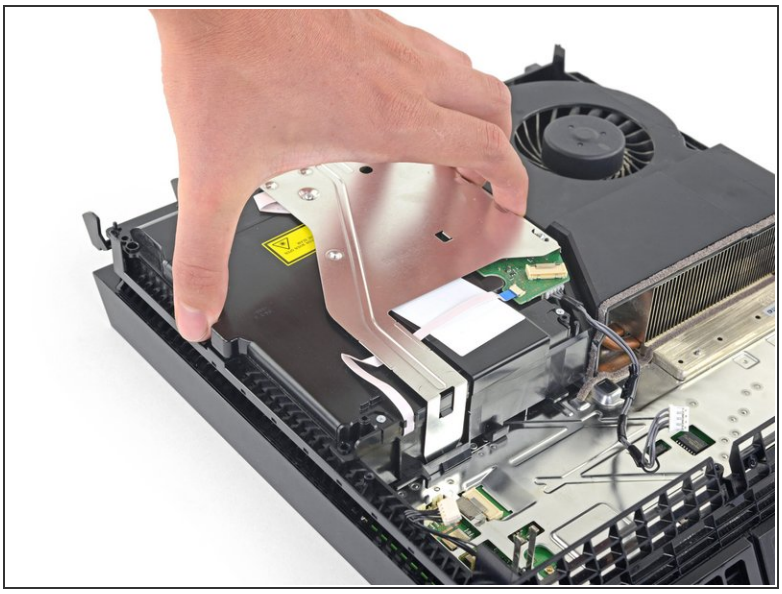
Step 21 — Remove the optical drive

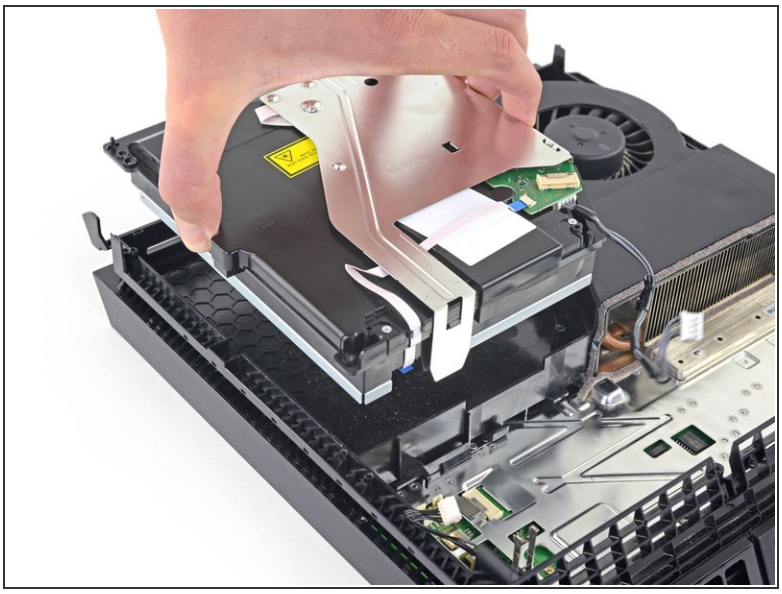




- Remove the four screws securing the optical drive.
  - Three 9.7 mm Torx screws
  - One 6.2 mm Phillips screw

Step 22

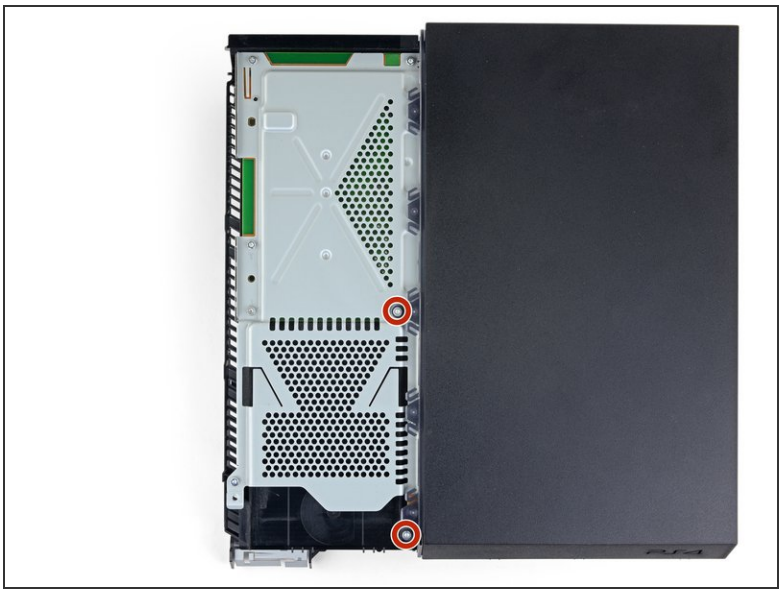


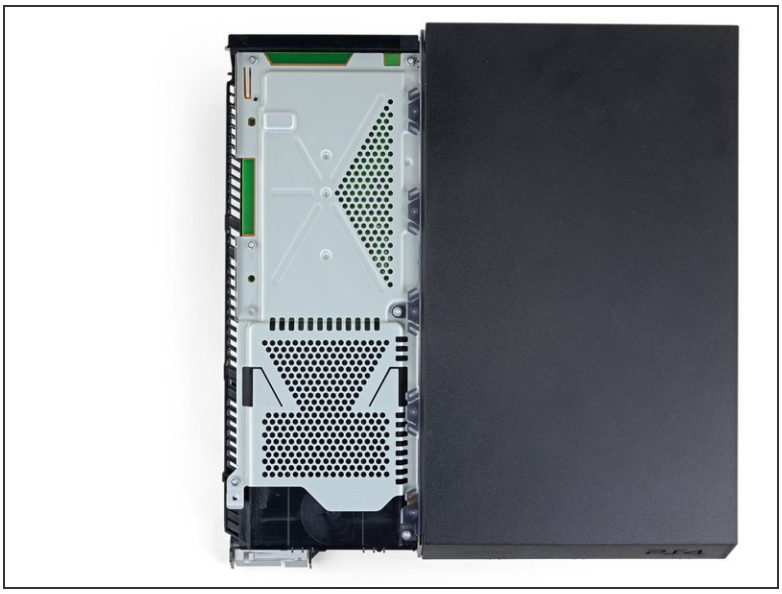


- Lift the optical drive straight up and out of the PS4.

© iFixit — CC BY-NC-SA

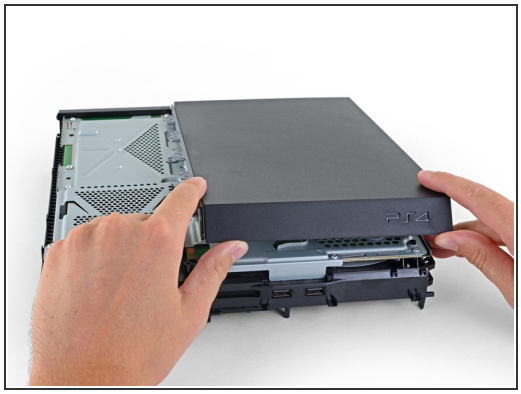
Step 23 — Remove the upper case

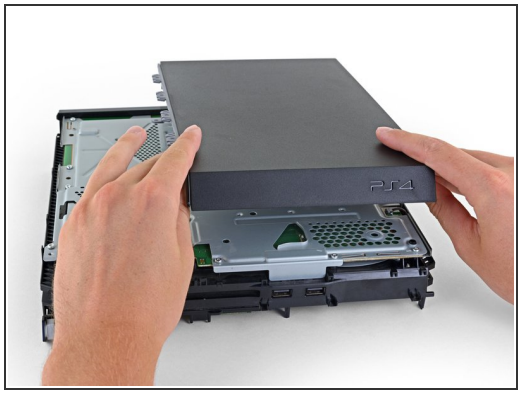




- Remove the two 9.7 mm Torx screws securing the upper case.

Step 24



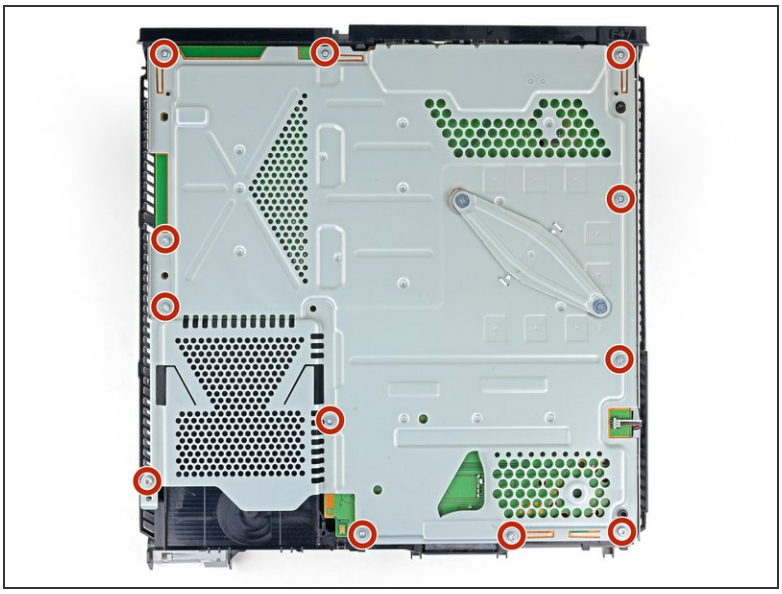


- Lift the upper case up and back to remove it from the PS4.

The upper case in held in place by plastic tabs on the front side. It will take significant force to separate them.

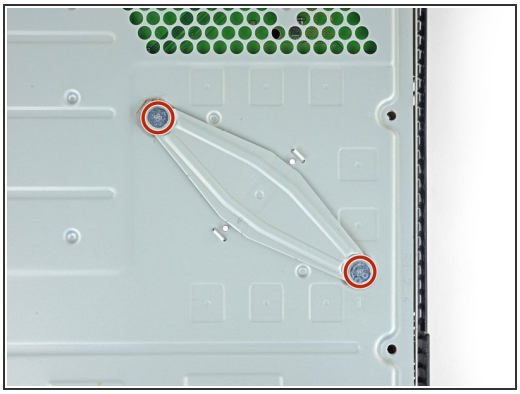
© iFixit — CC BY-NC-SA

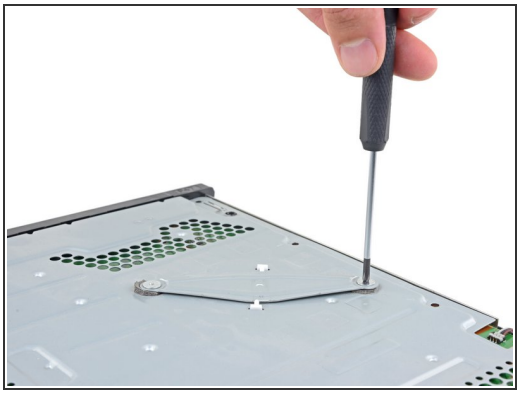
Step 25 — Remove the upper EMI shield

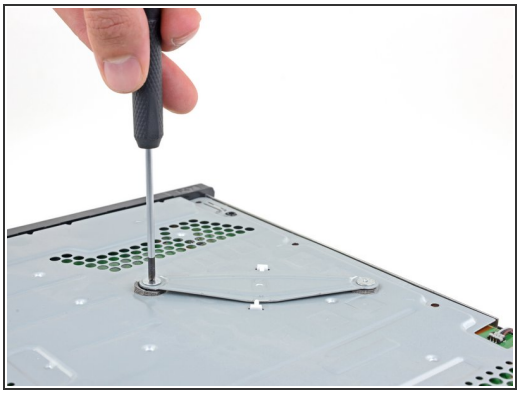


- Remove the twelve 9.7 mm Torx screws securing the upper EMI shield.

Step 26







This step shows you how to properly unscrew the pressure plate.

- Remove the two 15.6 mm Phillips screws.
  - Gradually unscrew the pressure plate by turning each screw one half turn at a time.
  - Alternate between the two screws to maintain even pressure on the pressure plate.

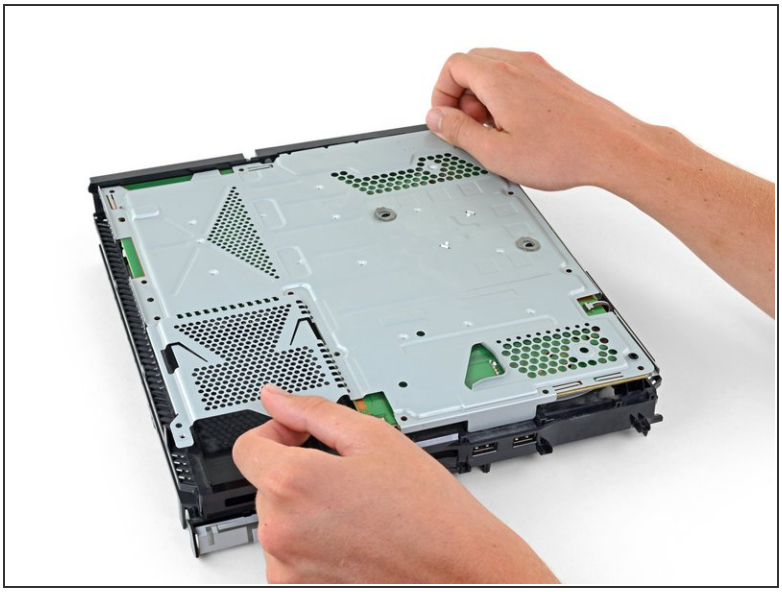
Do **not** unscrew one side completely before unscrewing the other side or you may damage the processor.

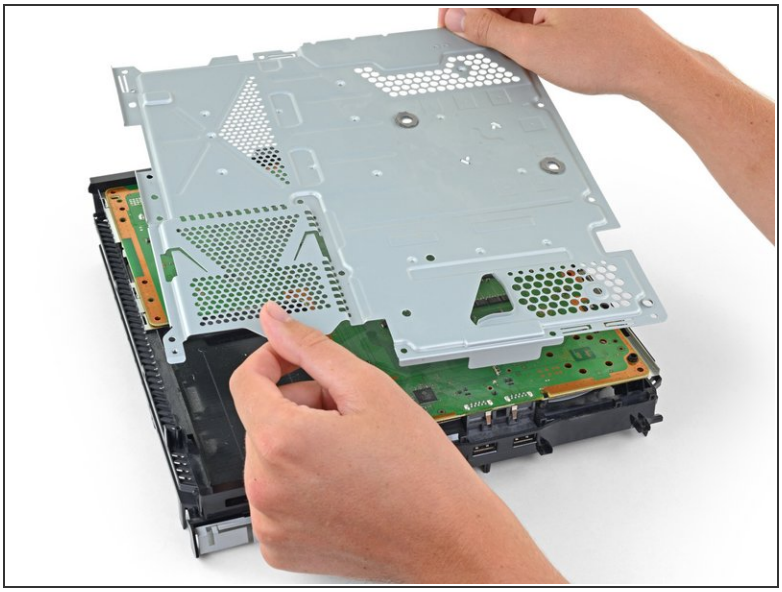
© iFixit — CC BY-NC-SA

Step 27

- Remove the pressure plate.

Step 28

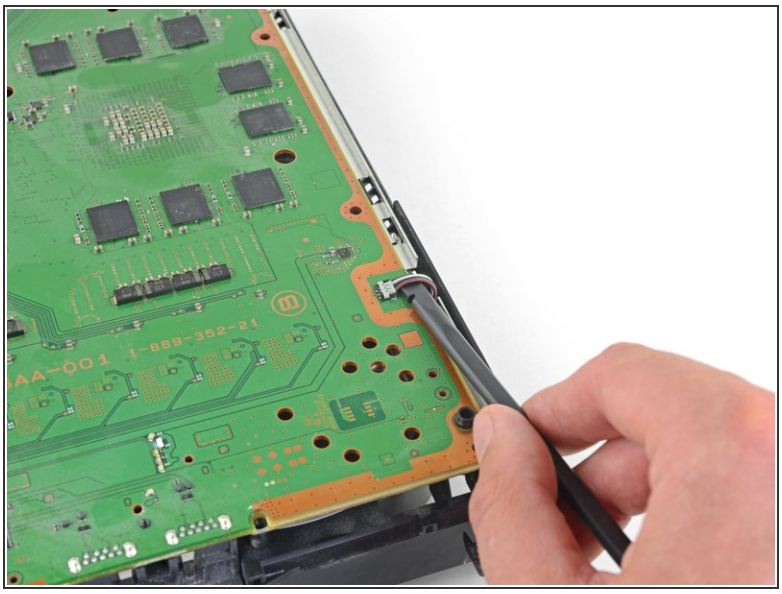


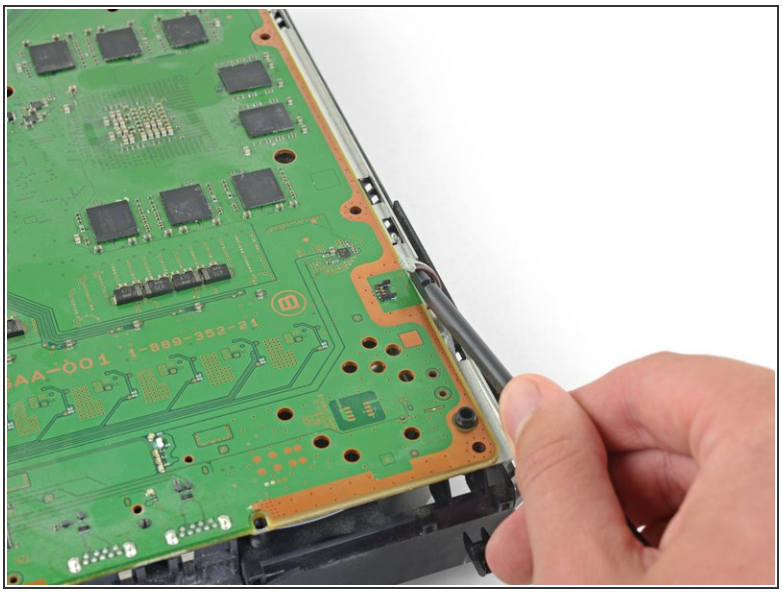


- Remove the upper EMI shield.

© iFixit — CC BY-NC-SA

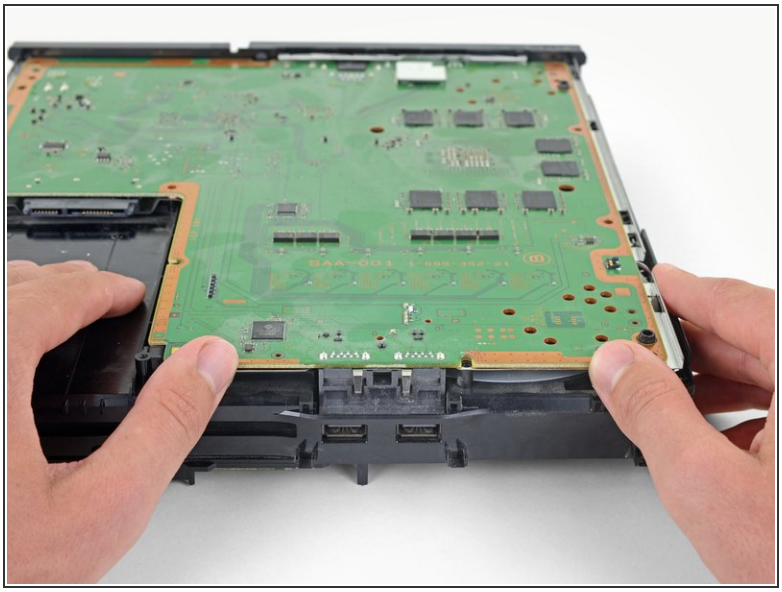
Step 29 — Remove the motherboard

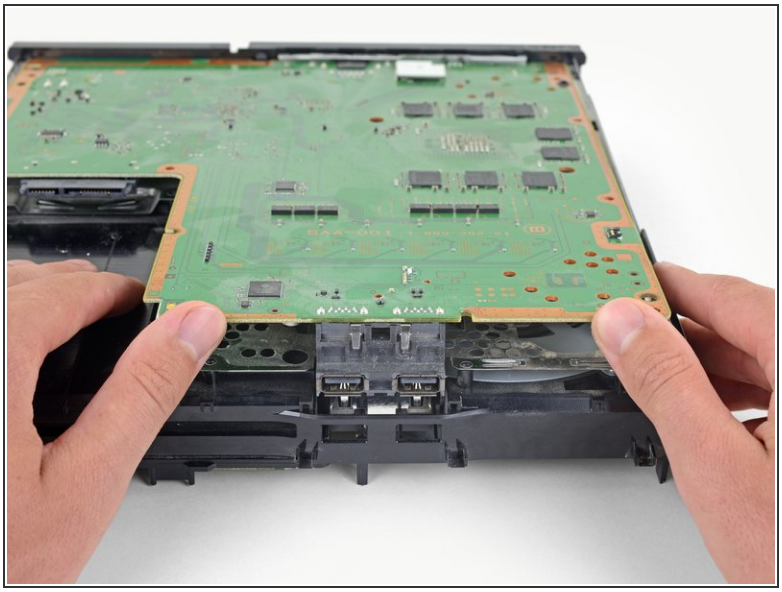




- Insert the flat end of a spudger in between the fan cable and the motherboard.
- Twist the spudger to lift the connector straight up and disconnect it from the motherboard.

Step 30

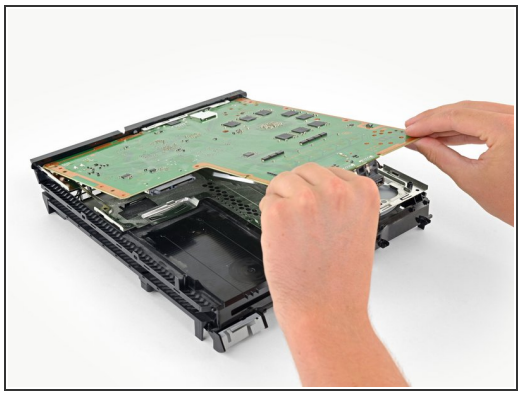
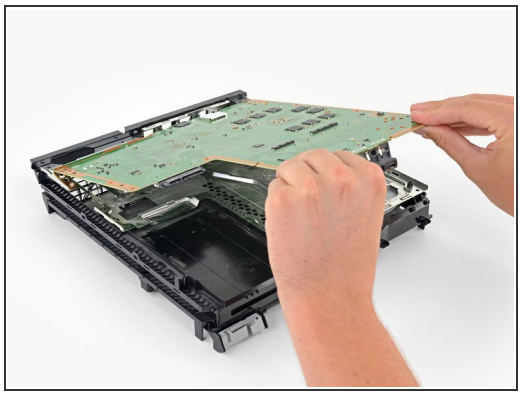
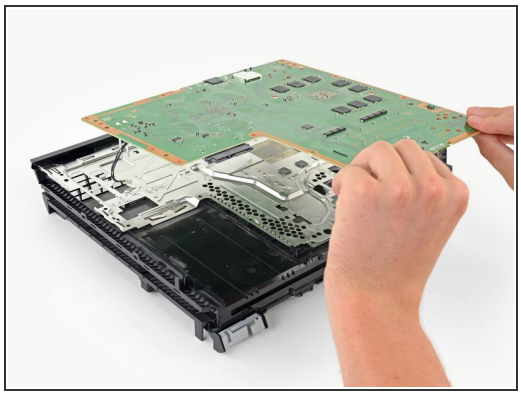




- Grab the edge of the motherboard on the front of the PS4.
- Lift the motherboard until the USB ports clear the PS4 case.

© iFixit — CC BY-NC-SA

Step 31

- Lift the motherboard out from the PS4.

Apply a new layer of thermal paste to the processor before installing a motherboard using this guide.

Failure to properly install new thermal paste will cause your PS4 to overheat.

Insert the I/O side of the Motherboard in first, then lower the other side in.

To reassemble your device, follow the above steps in reverse order.

Take your e-waste to an R2 or e-Stewards certified recycler.

Repair didn't go as planned? Check out our Answers community for troubleshooting help.

Compare your new replacement part to the original part—you may need to transfer remaining components or remove adhesive backings from the new part before installing.

© iFixit — CC BY-NC-SA